# CLAIMS

What is claimed is:

1.      A method for managing an uncorrectable data error (UE) as the UE passes through a plurality of devices in a central electronic complex (CEC), the method comprises the steps of:

      (a)    detecting a UE-RE by at least one device in the CEC;

      (b)    providing an attention signal by at least one device to a diagnostic system to indicate the UE-RE condition; and

      (c)    analyzing the UE-RE attention signal by the diagnostic system to produce an error log with a list of failing parts and a record of the log.

2.      The method of claim 1 wherein the UE can produce any of the following conditions: a UE-RE condition; an SUE-mask condition; SUE interrupt condition; and a SUE-CS condition.

3.      The method of claim 2 wherein the SUE-mask condition does not need to be reported.

4.      The method of claim 1 wherein the diagnostic system comprises a processor runtime diagnostic (PRD) code.

5.      The method of claim 2 wherein the detecting step (a) comprises the steps of:

      (a1)    detecting a UE-RE condition by a first device; and

3        (a2)    detecting a special uncorrectable data error (SUE) condition by at least one

4    other device at a later point in time, wherein the detection of the UE-RE condition by the first

5    device produces a UE-RE condition and the detection of the SUE condition by the at least one

6    other device produces a SUE-CS condition, wherein the UE-RE condition and the SUE-CS

7    condition are processed at substantially the same time.

1        6.      The method of claim 4 wherein the PRD code is within a service processor.

1        7.      The method of claim 6 wherein the PRD code accesses each of the plurality of

2    devices through an interface within the service processor.

1        8.      The method of claim 7 wherein the interface comprises a JTAG interface.

1        9.      A computer readable medium containing program instructions for managing an

2    uncorrectable data error (UE) as the UE passes through a plurality of devices in a central

3    electronic complex (CEC), the program instructions for:

4            (a)     detecting a UE-RE by at least one device in the CEC;

5            (b)     providing an attention signal by at least one device to a diagnostic

6    system to indicate the UE-RE condition; and

7            (c)     analyzing the UE-RE attention signal by the diagnostic system to

8    produce an error log with a list of failing parts and a record of the log.

1        10.     The computer readable medium of claim 9 wherein the UE can produce any of

2    the following conditions: a UE-RE condition; an SUE-mask condition; SUE interrupt

3      condition; and a SUE-CS condition.

1          11.    The computer readable medium of claim 10 wherein the SUE-mask condition

2      does not need to be reported.

1          12.    The computer readable medium of claim 9 wherein the diagnostic system

2      comprises a processor runtime diagnostic (PRD) code.

1          13.    The computer readable medium of claim 10 wherein the detecting step (a)

2      comprises the steps of:

3          (a1)    detecting a UE-RE condition by a first device; and

4          (a2)    detecting a special uncorrectable data error condition (SUE) condition by at

5      least one other device at a later point in time, wherein the detection of the UE-RE condition by

6      the first device produces a UE-RE condition and the detection of the SUE by the at least one

7      other device produces a SUE-CS condition, wherein the UE-RE condition and the SUE-CS

8      condition are processed at substantially the same time.

1          14.    The computer readable medium of claim 12 where in the PRD code is within a

2      service processor.

1          15.    The computer readable medium of claim 14 wherein the PRD code accesses

2      each of the plurality of devices through an interface within the service processor.

1          16.    The computer readable medium of claim 15 wherein the interface comprises a

2       JTAG interface.


1       17.     A service processor for managing an uncorrectable data error (UE) as the UE

2       passes through a plurality of devices in a central electronic complex (CEC), the service

3       processor comprises:

4               an attention handler for detecting a UE-RE by at least one device in the CEC and

5       providing an attention signal by at least one device to indicate the UE-RE condition; and

6               a diagnostic system for receiving the attention signal and for analyzing the UE-RE

7       attention signal to produce an error log with a list of failing parts and a record of the log.


1       18.     The service processor of claim 17 wherein the UE can produce any of the

2       following conditions:  a UE-RE condition; an SUE-mask condition; SUE interrupt condition,

3       and a SUE-CS condition.


1       19.     The service processor of claim 18 wherein the SUE-mask condition does not

2       need to be reported.


1       20.     The service processor of claim 17 wherein the diagnostic system comprises a

2       processor runtime diagnostic (PRD) code.


1       21.     The service processor of claim 18 wherein the attention handler detects a UE-

2       RE condition by a first device, and detects a special uncorrectable data error checkstop (SUE-

3       CS) condition by at least one other device at a later point in time, wherein the UE-RE condition

4       and the SUE-CS conditions are processed at substantially the same time.

1   22.  The service processor of claim 20 wherein the PRD code accesses each of the

2  plurality of devices through an interface within the service processor.


1   23.  The service processor of claim 22 wherein the interface comprises a JTAG

2  interface.

1   24.  A method for managing an uncorrectable data error (UE) as the UE passes

2  through a plurality of devices in a central electronic complex (CEC), the method comprises the

3  steps of:

4   (a)  detecting a UE-RE condition by at least one device in the CEC wherein the

5  detecting step (a) comprises the steps of: (a1) detecting a UE-RE condition by a first device;

6  and (a2) detecting a special uncorrectable data error (SUE) condition by the at least one other

7  device at a later point in time, wherein the detection of the UE-RE condition by the first device

8  produces a UE-RE condition and the detection of the SUE condition by the at least one other

9  device produces a SUE-CS condition, wherein the UE-RE condition and the SUE-CS

10  conditions are processed at substantially the same time;

11   (b)  providing an attention signal by at least one device to a processor runtime

12  diagnostic (PRD) code to indicate the UE-RE condition, wherein the PRD accesses each of the

13  plurality of devices through an interface within the service processor; and

14   (c)  analyzing the UE-RE attention signal by the diagnostic system to produce an

15  error log with a list of failing parts and a record of the log.


1   25.  The method of claim 24 wherein the UE can produce any of the following

2  conditions: a UE-RE condition; an SUE-mask condition; SUE interrupt condition; and a SUE-

3  CS condition.

1       26.    The method of claim 25 wherein the SUE-mask condition does not need to be

2      reported.

1       27.    The method of claim 26 wherein the PRD code is within a service processor.

1       28.    The method of claim 27 wherein the interface comprises a JTAG interface.

1       29.    A computer readable medium containing program instructions for managing an

2      uncorrectable data error (UE) as the UE passes through a plurality of devices in a central

3      electronic complex (CEC), the program instructions for:

4      (a)    detecting a UE-RE condition by at least one device in the CEC wherein the

5      detecting step (a) comprises the steps of: (a1) detecting a UE-RE condition by a first device;

6      and (a2) detecting a special uncorrectable data error (SUE) condition by the at least one other

7      device at a later point in time, wherein the detection of the UE-RE condition by the first device

8      produces a UE-RE condition and the detection of the SUE condition by the at least one other

9      device produces a SUE-CS condition, wherein the UE-RE condition and the SUE-CS

10     conditions are processed at substantially the same time;

11     (b)    providing an attention signal by at least one device to a processor runtime

12     diagnostic (PRD) code to indicate the UE-RE condition, wherein the PRD accesses each of the

13     plurality of devices through an interface within the service processor; and

14     (c)    analyzing the UE-RE attention signal by the diagnostic system to produce an

15     error log with a list of failing parts and a record of the log.

1    30.    The computer readable medium of claim 29 wherein the UE can produce any of

2    the following conditions:  a UE-RE condition; an SUE-mask condition; SUE interrupt

3    condition; and a SUE-CS condition.


1    31.    The computer readable medium of claim 30 wherein the SUE-mask condition

2    does not need to be reported.


1    32.    The computer readable medium of claim 31 wherein the PRD code is within a

2    service processor.


1    33.    The computer readable medium of claim 32 wherein the interface comprises a

2    JTAG interface.


1    34.    A service processor for managing an uncorrectable data error (UE) as the UE

2    passes through a plurality of devices in a central electronic complex (CEC), the service

3    processor comprises:

4        an attention handler for detecting a UE-RE by at least one device in the CEC and

5    providing an attention signal by at least one device to indicate the UE-RE condition, wherein

6    the attention handler detects a UE-RE condition by a first device, and detects a special

7    uncorrectable data error  checkstop (SUE-CS) condition by at least one other device at a later

8    point in time, wherein the UE-RE condition and the SUE-CS conditions are processed at

9    substantially the same time; and

10        a processor runtime diagnostic (PRD) code for receiving the attention signal and for

11   analyzing the UE-RE attention signal to produce an error log with a list of failing parts and a

12   record of the log, wherein the PRD accesses each of the plurality of devices through an

13   interface within the service processor.

1    35.   The service processor of claim 34 wherein the UE can produce any of the

2    following conditions:  a UE-RE condition; an SUE-mask condition; SUE interrupt condition,

3    and a SUE-CS condition.

1    36.   The service processor of claim 35 wherein the SUE-mask condition does not

2    need to be reported.

1    37.   The service processor of claim 36 wherein the interface comprises a JTAG

2    interface.